

CLAIMS

1. A method of retrieving electronic mail for a user at a location remote from a server to which the user belongs but which the user is unable to specify, including the steps of: providing an access database containing records of servers supporting a specified electronic mail protocol or protocols; requiring from the user the electronic mail address and log-in password of the user; parsing the mail address to identify and remove the user identifier from the mail address and thereby obtain a presumed domain name of the user's server; interrogating the access database to determine whether it contains a record of a server corresponding to the presumed domain name; retrieving the record of any corresponding server thus identified as the server to which the user belongs; retrieving the user's electronic mail from a server identified as the user's server; and directing the mail to the user at the remote location.

2. A method according to Claim 1, including the steps of: assuming that the domain name is the server in the event that the access database contains no corresponding server record; checking the domain name for the user's mail; and identifying the domain name as the user's server if the domain name responds positively.

3. A method according to Claim 2, including the following steps in the event that the access database contains no corresponding server record and the domain name responds negatively: sending out a Mail Exchange MX record enquiry to the Internet Domain Name System (DNS) database regarding the presumed domain name; listing the responses received from the DNS database; checking the responses in turn to determine whether a predetermined port or ports associated with the predetermined protocol or protocols is or are open or closed; and identifying a response having an open port or ports as the user's server.

4. A method according to Claim 3, including: obtaining the Internet Provider (IP) address of the MX record; checking the open or closed status of the predetermined port or ports for a predetermined block of host IP addresses; storing all of the IP addresses having open port status in the access database; interrogating the stored IP addresses with the user's address and password; and identifying a successful IP address as the user's server.

5. A method according to claim 3, including the following steps in the event that the user's server is not identified from amongst the responses from the DNS database: requesting the full list of host names for the presumed domain name by DNS zone transfer; checking the open or closed status of the predetermined ports of the listed host names in turn; and identifying a host having open port status as the user's server.

6. A method according to Claim 5, including the following steps in the event that the DNS database does not allow zone transfer: retrieving the IP address block which has been allocated to the presumed domain by the Networked Information Centre (NIC); checking the open or closed status of the predetermined port or ports of the IP addresses in the block; storing all of the IP addresses having open port status in the access database; interrogating each of the stored IP addresses with the user's address and password; and identifying a successful IP address as the user's server.

7. A method according to any one of Claims 2 to 6, including the step of updating the access database with a record of a previously unrecorded server identified as the user's server or identified as supporting the predetermined protocol or protocols.

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8. A method according to any preceding claim, in which the database is divided into first and second tables and including the steps of: entering records of users' mail addresses and the addresses of servers identified as corresponding servers in the first table; and entering records of domain names and the addresses of any servers identified as corresponding servers in the second table.

9. A method according to any preceding claim in which the predetermined protocol or protocols is or are the Post Office Protocol (POP3) and/or the Internet Message Access Protocol (IMAP4).

10. A system for retrieving electronic mail for a user at a location remote from a server to which the user belongs but which the user is unable to specify, including: an access database containing records of servers supporting a predetermined electronic mail protocol or protocols; and a remote access mail client associated with the database and having access to the Internet Domain Name System (DNS) database and to a search engine associated with the protocol or protocols; in which system the remote access mail client is arranged to require from the user the user's electronic mail address and password, to parse the mail address to identify and remove the user identity from the mail address and thereby obtain a presumed domain name of the user's server, to interrogate the access database to determine whether it contains a record of a server corresponding to the presumed domain name, and to retrieve the record of any corresponding server thus identified as the server to which the user belongs, to retrieve the user's mail from any server identified as the user's server and to direct it to the user at the remote location.

11. A system according to Claim 10, in which the remote access mail client is arranged to assume that the presumed domain name is the user's server in the event that the access database contains no corresponding server record, to check the domain name for the user's mail and to identify the domain name as the user's server if the domain name responds positively.

12. A system according to claim 11, in which the remote access mail client is arranged to send out Mail Exchange (MX) record enquiry to the DNS database regarding the presumed domain name, to list the responses from the DNS database, to check the responses in turn to determine whether a predetermined port or ports associated with the protocol or protocols is or are open or closed, and to identify a response having an open port or ports as the user's server.

13. A system according to claim 12, in which the remote access mail client is arranged to obtain the IP address of the MX record, to check the open or closed status of the predetermined port or ports for a predetermined block of host IP addresses, store all of the IP addresses having open port status, to interrogate the stored addresses in turn with the user's address and password, and to identify a successful IP address as the user's server.

14. A system according to Claim 13, in which the remote access mail client is arranged to request the full list of host names for the presumed domain name by DNS zone transfer, to check the open or closed status of the predetermined ports of the listed host names and to identify a host having an open port status as the user's server.

15. A system according to Claim 14, in which the remote access mail client is arranged to retrieve the IP address block which has been allocated to the presumed domain name by the Networked Information Centre (NIC), to check the open or closed status of the predetermined port or ports, to store all of the IP addresses having open port status in the access database, to interrogate the IP addresses having open port status in turn and to identify a successful IP address as the user's server.

16. A system according to any one of Claims 10 to 15, in which the remote access mail client is arranged to write in the access database a record of any previously unrecorded server identified as the user's server identified as supporting the predetermined protocol or protocols.

17. A system according to any one of Claims 10 to 16, in which the database is divided into first and second tables, records of users' mail addresses and their corresponding servers being entered in the first table and records of domain names and their corresponding servers being entered in the second table.

18. A system according to any one of Claims 10 to 17, in which the predetermined protocol or protocols is or are the Post Office Protocol (POP3) and/or the Internet Message Access Protocol (IMAP4).